



Subject: Computer Science

Exam board: OCR

Link to specification: [GCSE \(9-1\) Computer Science J277 Specification](#)

Coursework requirements: None

	<b>Content</b>	<b>Skills</b>	<b>Assessment</b>
<b>Term 1</b>	Computational thinking: Algorithms, Abstraction, decomposition, Flow charts and Pseudocode.	Being able to define key term, construct and understand flowcharts and pseudocode to represent algorithms	Worksheets during topic, end of unit test
<b>Term 2</b>	Python, Computer hardware, Boolean logic gates	First steps in coding in Python. Understand the physical components of a computer and how they work. Construct and understand circuits using Logic gates	Python challenge. Worksheets, End of unit test
<b>Term 3</b>	Python, Representation	Build further skills in Python. Understand how data is represented on computers.	End of unit test
<b>Term 4</b>	Python, Algorithms: Sort and Search. Encryption	Build further skills in Python. Understand key algorithms for sorting and searching data. Understand and program Encryption and its purposes.	Programming challenge. End of unit test
<b>Term 5</b>	Software development in Python	Understand the whole life cycle of Software development.	Final report on project.
<b>Term 6</b>	Python, Consolidation	Further develop computational thinking. Consolidate skills covered in the year.	End of year exam
Year 11			



## GCSE Scheme of Learning



<b>Term 1</b>	Databases	Understand what a database is and how it is used. Understand SQL	
<b>Term 2</b>	Python refresh, understanding pseudocode.	How to apply knowledge gained in the context of GCSE questions.	
<b>Term 3</b>	Networks, Cybersecurity, Legal and Ethical implications	Understand how networks are constructed. Understand the need for cybersecurity and how the most common attacks are made. Understand the Legal ethical and environmental implications of using IT	
<b>Term 4</b>	Revision		
<b>Term 5</b>	Revision		
<b>Term 6</b>			